

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of :  
COATES et al. : Examiner: F. Krass  
Serial No.: 07/835,964 : Group Art Unit: 1614  
Filed: February 20, 1992 :  
For: 1,3-OXATHIOLANE NUCLEOSIDE ANALOGUES

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, DC 20231

SIR:

**R E M A R K S**

This Information Disclosure Statement is being submitted after the first action on the merits of the above-identified application, but before a final rejection or a Notice of Allowance. The statutory fee of \$240.00 for submission of this Information Disclosure Statement is included in the attached check. Authorization is hereby given to charge any deficiency or credit any overpayment to counsel's Deposit Account No. 13-3402.

Counsel wishes to extend thanks to Examiner Krass for his time during the interview of August 11, 1999, as well the subsequent interview of October 26, 1999. These interviews were beneficial for the further prosecution of the instant application.

At the interviews, the pending Interference No. 104,201 involving Liotta et al. (U.S. 5,539,116) and an application assigned to BioChem Pharma Inc. was discussed. The latter application claims priority back to Belleau et al. (U.S. Patent No. 5,047,407). Generally, the subject matter of this Interference concerns single enantiomers of

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Cheng et al., U.S. 5,756,478 (copy enclosed) was also discussed at the interview, as well as a potential Interference between U.S. '478 and copending U.S. Application No. 08/460,854. The latter is a continuation of the instant application. The earliest possible U.S. filing date of U.S. '478 is March 16, 1995, and thus does not constitute prior art with respect to the present application. Also enclosed is a copy of Cheng et al., U.S. 5,869,461. The latter patent issued from Serial No. 406,198, the parent of the application which issued as US '478.

Also enclosed are copies of U.S. Patent Nos. 5,627,186 and 5,859,021. The earliest possible U.S. filing date for both of these patents is May 15, 1992, and thus they also do not constitute prior art with respect to the instant patent. Both of these patents claim antiviral combinations containing a mixture of first and second compounds with specified ratios of the first compound to the second compound. The first compound is (2R, *cis*)-4-amino-1-(2-hydroxymethyl-1,3-oxythiolan-5-yl)-1H-pyrimidin-21, or a pharmaceutically acceptable salt, ester or salt of said ester thereof. The second compound is 3'-azido-3'-deoxy thymidine or a pharmaceutically acceptable salt, ester or salt of said ester thereof. These patents claim this combination of anti-HIV compounds as well as methods for treating HIV infections using same.

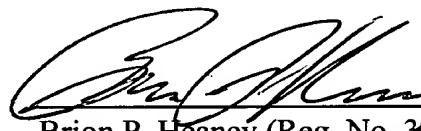
In addition, enclosed are copies of the following articles which are discussed in the Amendment being filed herewith:

Beach et al., "Synthesis of Enantiomerically Pure (2'R,5'S)-(-)-1-[Hydroxymethyl]oxathiolan-5-yl]cytosine as a Potent Antiviral Agent against Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV)," *J. Org. Chem.* 1992, 57, 2217-2219;

Chang et al., "Deoxycytidine Deaminase-resistant Stereoisomer Is the Active Form of ( $\pm$ )-2',3'-Dideoxy-3'-thiacytidine in the Inhibition of Hepatitis B Virus Replication," *Journal of Biological Chemistry*, July 15, 1992, Vol. 267, No. 20; and

Schinazi et al., "Activities of the Four Optical Isomers of 2',3'-Dideoxy-3'-Thiacytidine (BCH-189) against Human Immunodeficiency Virus Type 1 in Human Lymphocytes," *Antimicrobial Agents & Chemotherapy*, March 1992, Volume 36, No. 3.

Respectfully submitted,



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